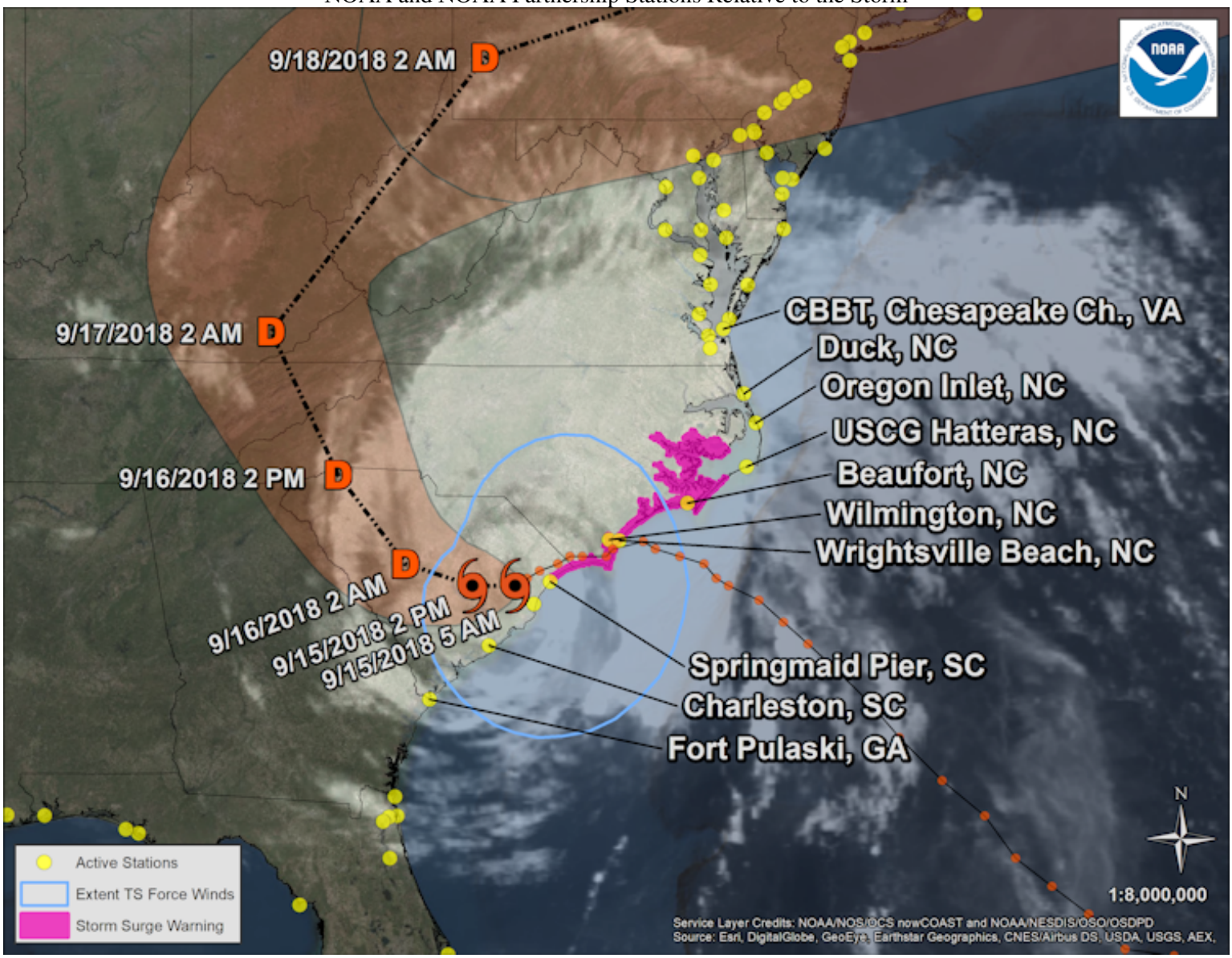
Tropical Storm Florence QuickLook
Posted: 06:00 EDT 09/15/2018

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 09/15/2018 06:00 EDT, water levels along the North and South Carolina coast continue to be impacted by Florence. On the Atlantic coast, water levels from Myrtle Beach, SC to the Chesapeake Bay entrance (including Pamlico Sound) are between 1.2 and 3.3 feet above normal tide levels with the highest values being observed at Wilmington, NC. Water levels from Charleston, SC to Fort Pulaski, GA are running below normal tide levels due to offshore wind in those areas.

Winds from Myrtle Beach northward range from 20-40 knots with gusts to near 50 knots. Barometric pressure continues to rise north of Myrtle Beach, SC but continues to drop slightly south of that location.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit Coastal Inundation Dashboard. For additional data, please see the Center for Operational Oceanographic Products & Services website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: CRD

Select National Hurricane Center Advisory:Tropical Storm Florence Advisory Number 64
NWS National Hurricane Center Miami FL
500 AM EDT Sat Sep 15 2018

...FLORENCE SLOWLY WEAKENING JUST INLAND OVER EASTERN SOUTH CAROLINA BUT CAUSING CATASTROPHIC FLOODING OVER NORTH AND SOUTH CAROLINA...

SUMMARY OF 500 AM EDT...INFORMATION

LOCATION...33.6N 79.5W
ABOUT 35 MI... W OF MYRTLE BEACH SOUTH CAROLINA
ABOUT 45 MI... SSE OF FLORENCE SOUTH CAROLINA
MAXIMUM SUSTAINED WINDS...50 MPH
PRESENT MOVEMENT...WSW OR 255 DEGREES AT 5 MPH
MINIMUM CENTRAL PRESSURE...986 MB...29.12 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

None.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Storm Surge Warning is in effect for...
* Myrtle Beach South Carolina to Ocracoke Inlet North Carolina
* Pamlico Sound, including the Neuse and Pamlico Rivers

A Tropical Storm Warning is in effect for...
* Edisto Beach South Carolina to Ocracoke Inlet North Carolina
* Pamlico Sound

Interests elsewhere in the southeastern and mid-Atlantic states should monitor the progress of Florence.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

DISCUSSION AND OUTLOOK

At 500 AM EDT, the center of Tropical Storm Florence was
located near latitude 33.6 North, longitude 79.5 West. Florence is moving toward the west-southwest near 5 mph, and a turn toward the west and northwest is expected today and Sunday. Florence is forecast to turn northward through the Ohio Valley by Monday.

Radar data indicate that the maximum sustained winds have decreased to near 50 mph with higher gusts. Continued gradual weakening is forecast while Florence moves farther inland during the next couple of days, and it is likely to weaken to a tropical depression by tonight.

Tropical-storm-force winds extend outward up to 175 miles
from the center. A sustained wind of 48 mph with a gust
to 57 mph was recently reported at Mercer Pier, North
Carolina.

The estimated minimum central pressure is 986 mb.

HAZARDS AFFECTING LAND

STORM SURGE: The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water has the potential to reach the following heights above ground...

The Neuse, Pamlico, Pungo, and Bay Rivers...3-5 ft
Ocracoke Inlet NC to Cape Lookout NC...2-4 ft
Cape Lookout NC to Cape Fear NC...3-5 ft
Cape Fear NC to Myrtle Beach SC...2-4 ft

The deepest water will occur along the immediate coast in areas of onshore winds, where the surge will be accompanied by large and destructive waves. Surge-related flooding can vary greatly over short distances. For information specific to your area, please see products issued by your local National Weather Service forecast office.

RAINFALL: Florence is expected to produce heavy and excessive rainfall in the following areas...

Southern and central portions of North Carolina into far northeast South Carolina...an additional 10 to 15 inches, with storm totals between 30 and 40 inches along the North Carolina coastal areas south of Cape Hatteras. This rainfall will continue to produce catastrophic flash flooding and prolonged significant river flooding.

Remainder of northern South Carolina into western North Carolina and southwest Virginia...5 to 10 inches, isolated 15 inches.

West-central Virginia into far eastern West Virginia, north of Roanoke and west of Charlottesville, 3 to 6 inches, isolated 8 inches. These rainfall amounts will result in life-threatening flash flooding and river flooding, along with an elevated risk for landslides.

Newport, North Carolina reported a rainfall total of almost 24 inches as of midnight Saturday.

WIND: Tropical storm conditions will continue today in portions of the warning area along the coast and also over large portions of eastern North Carolina and extreme eastern South Carolina, with tropical-storm-force wind gusts spreading well inland.

TORNADOES: A few tornadoes are possible in southeastern North Carolina and northeastern South Carolina today through tonight.

SURF: Swells generated by Florence are affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

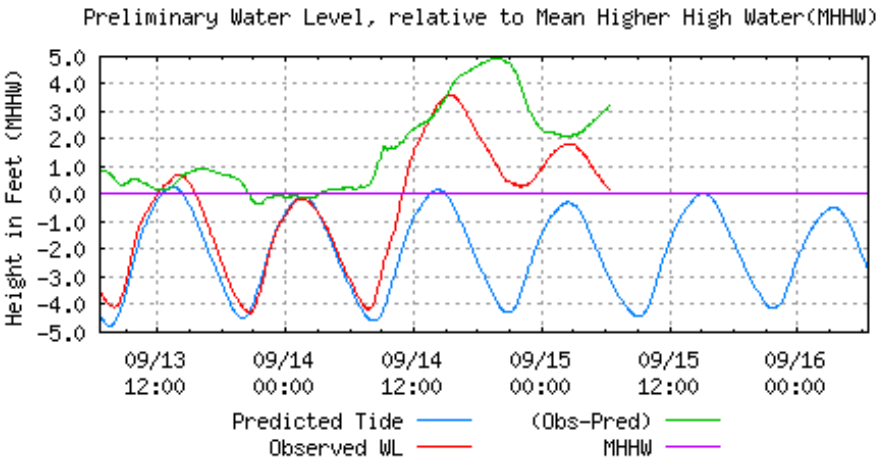
NEXT ADVISORY

Next intermediate advisory at 800 AM EDT.
Next complete advisory at 1100 AM EDT.

Forecaster Pasch

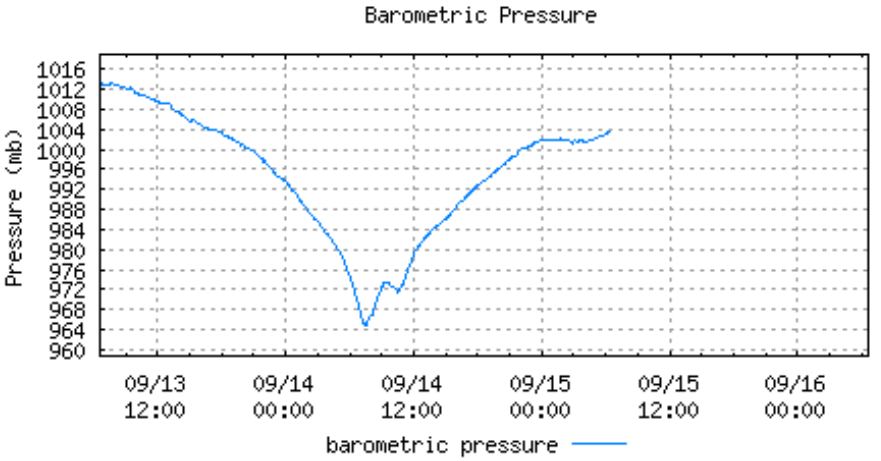
Jump to: Wilmington - Water Level, Wilmington - Barometric, Wrightsville Beach - Water Level, Wrightsville Beach - Winds, Wrightsville Beach - Barometric, Beaufort, Duke Marine Lab - Water Level, Beaufort, Duke Marine Lab - Winds, Beaufort, Duke Marine Lab - Barometric, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, USCG Station Hatteras - Barometric, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, Oregon Inlet Marina - Barometric, Duck - Water Level, Duck - Winds, Duck - Barometric, Springmaid Pier - Water Level, Springmaid Pier - Barometric, CBBT, Chesapeake Channel - Water Level, CBBT, Chesapeake Channel - Winds, CBBT, Chesapeake Channel - Barometric, Charleston, Cooper River Entrance - Water Level, Charleston, Cooper River Entrance - Winds, Charleston, Cooper River Entrance - Barometric, Fort Pulaski - Water Level, Fort Pulaski - Winds, Fort Pulaski - Barometric

NOAA/NOS/CO-OPS 8658120 Wilmington, NC



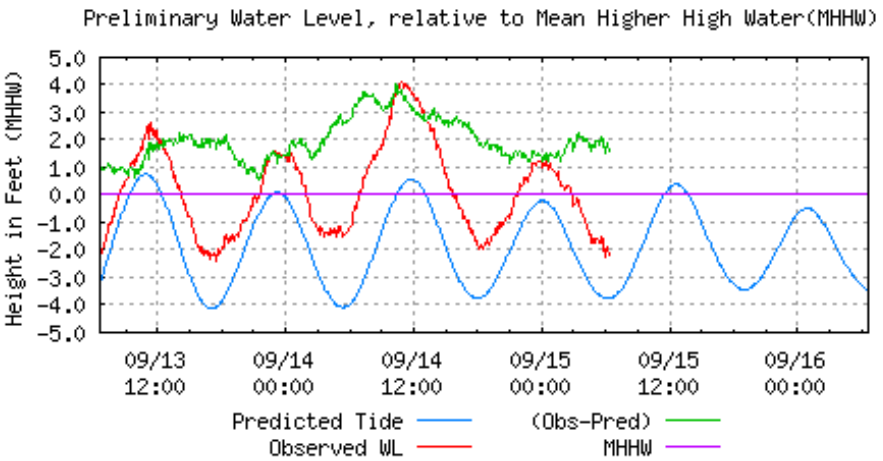
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: 0.13 ft. Predicted: -3.09 ft. Residual: 3.22 ft.
Historical Maximum Water Level: Oct 8 2016, 3.48 ft.
Next High Tide: 09/15/2018 15:08 (EDT), 0.04 ft.

NOAA/NOS/CO-OPS 8658120 Wilmington, NC



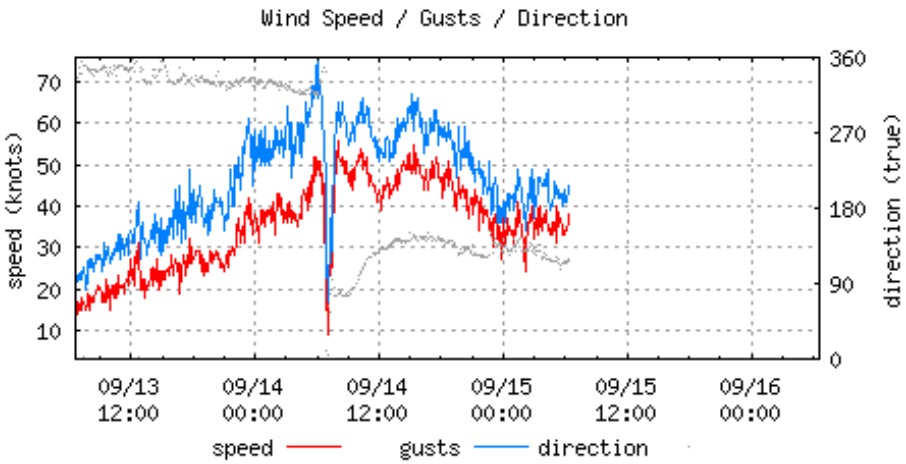
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1003.5 mb

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



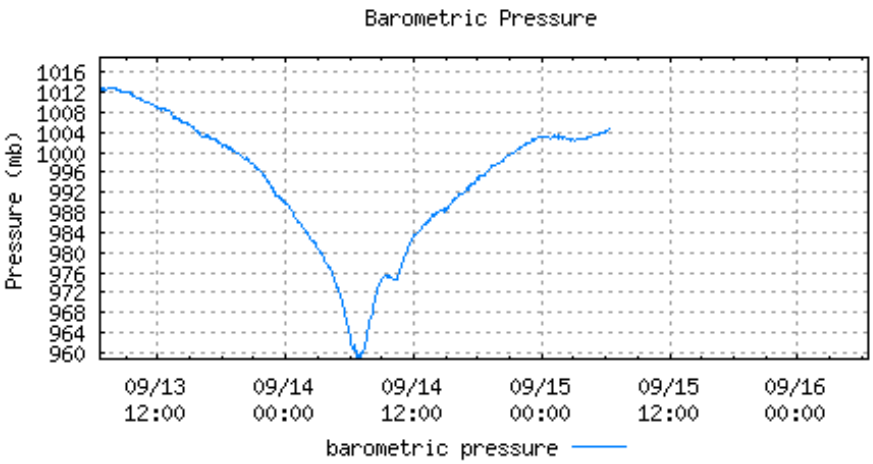
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -2.19 ft. Predicted: -3.76 ft. Residual: 1.57 ft.
Historical Maximum Water Level: Oct 4 2015, 2.97 ft.
Next High Tide: 09/15/2018 12:37 (EDT), 0.39 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



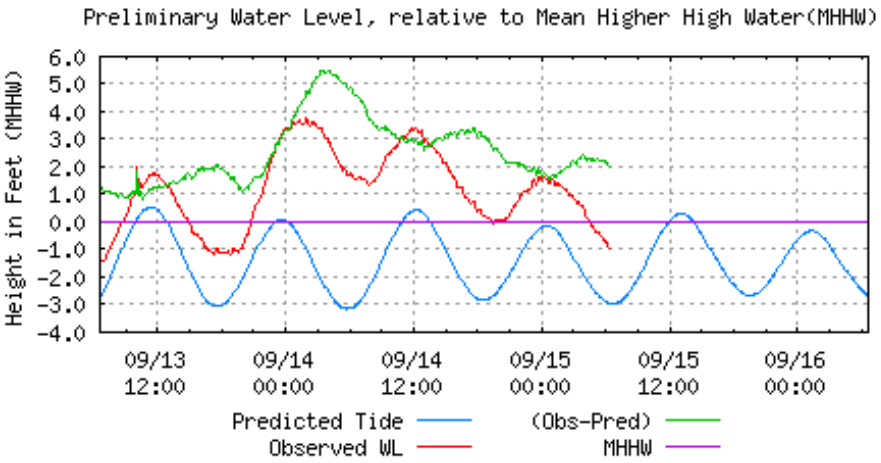
Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 38 knots Gusts: 45 knots Direction: 118° T

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



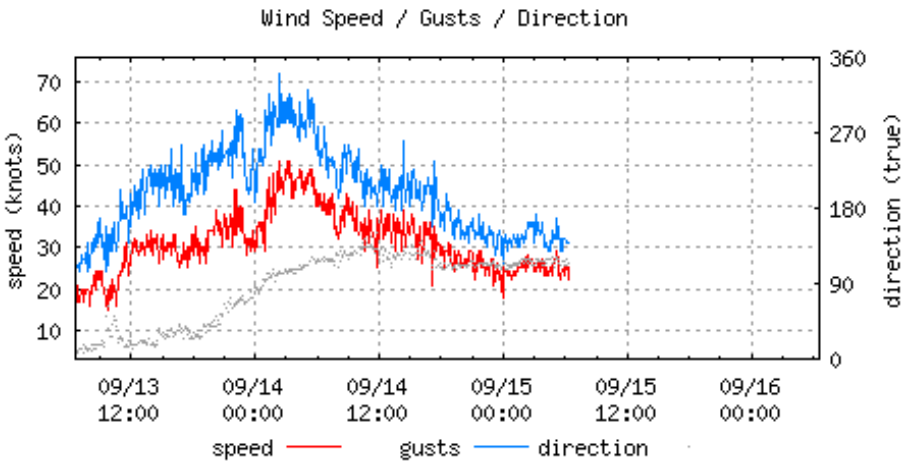
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1004.6 mb

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



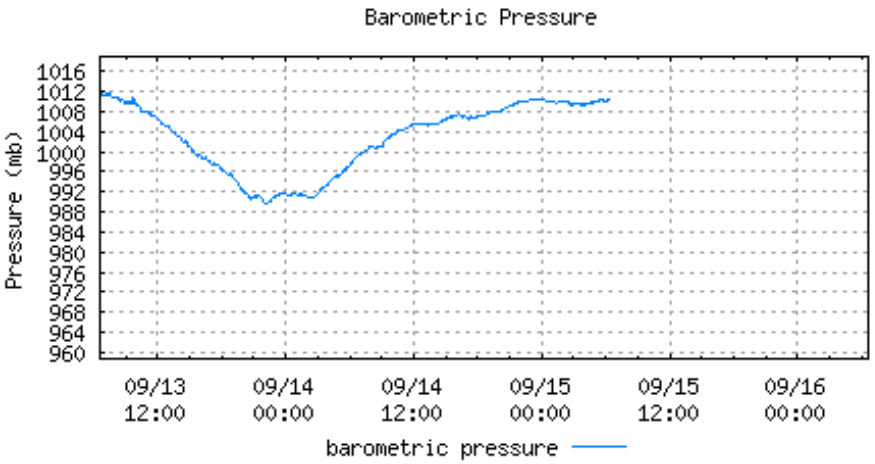
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -0.98 ft. Predicted: -2.97 ft. Residual: 1.99 ft.
Historical Maximum Water Level: Sep 19 1955, 3.39 ft.
Next High Tide: 09/15/2018 13:04 (EDT), 0.31 ft.

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



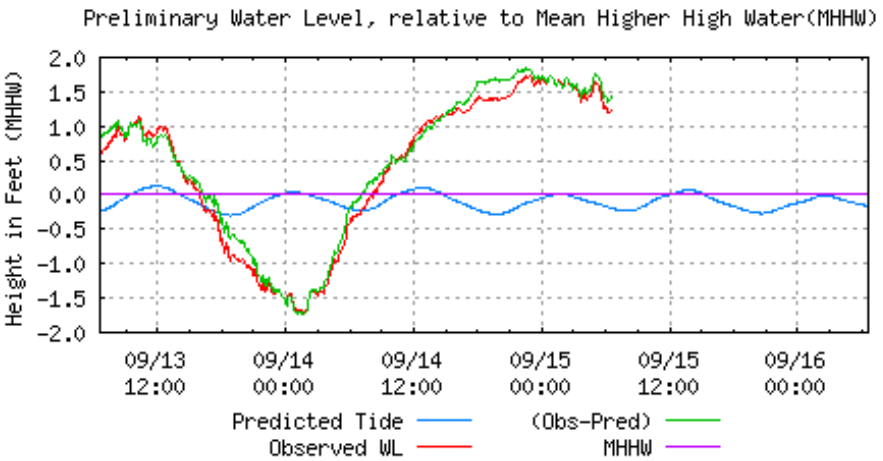
Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 22 knots Gusts: 31 knots Direction: 114° T

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



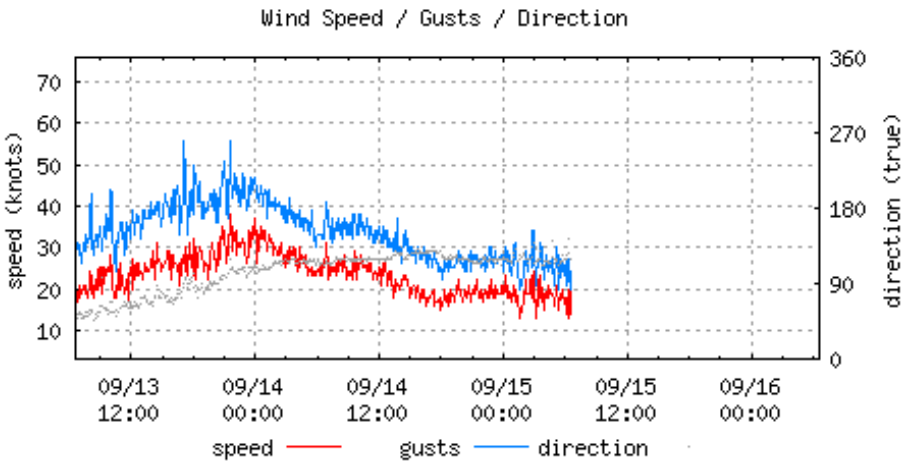
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1010.5 mb

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



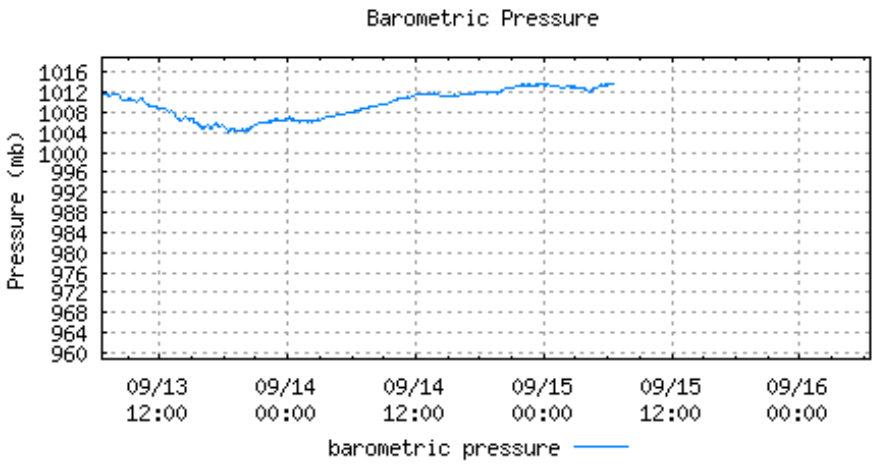
Last Observed Sample: 09/15/2018 06:36 (EDT). Data relative to MHHW
Observed: 1.24 ft. Predicted: -0.19 ft. Residual: 1.43 ft.
Historical Maximum Water Level: Oct 9 2016, 5.76 ft.
Next High Tide: 09/15/2018 13:51 (EDT), 0.07 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



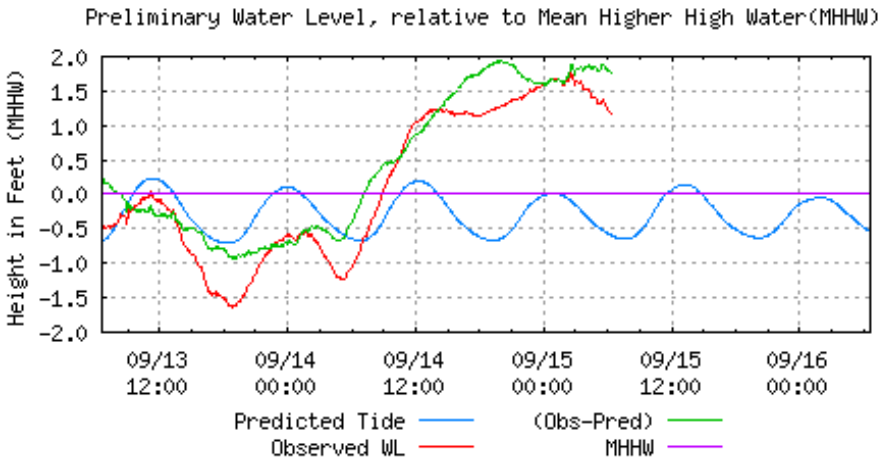
Last Observed Sample: 09/15/2018 06:36 (EDT)
Wind Speed: 20 knots Gusts: 24 knots Direction: 119° T

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



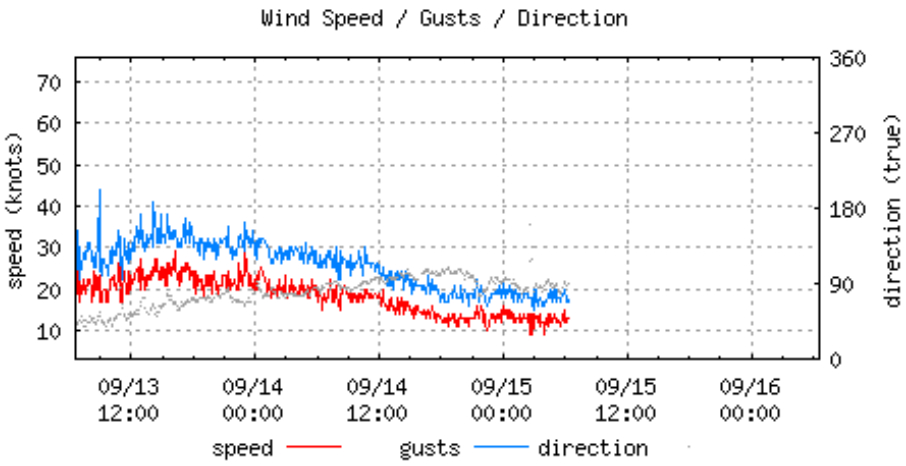
Last Observed Sample: 09/15/2018 06:36 (EDT)
Barometric Pressure: 1013.7 mb

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



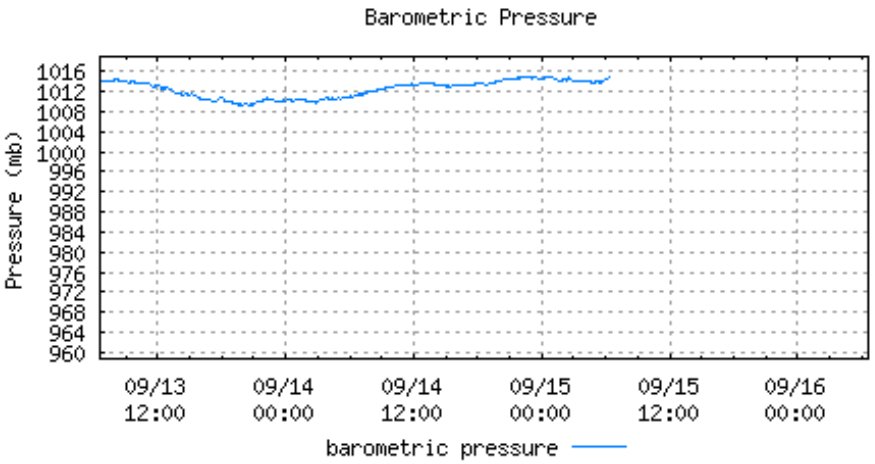
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: 1.17 ft. Predicted: -0.60 ft. Residual: 1.77 ft.
Historical Maximum Water Level: Aug 28 2011, 6.31 ft.
Next High Tide: 09/15/2018 13:11 (EDT), 0.13 ft.

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



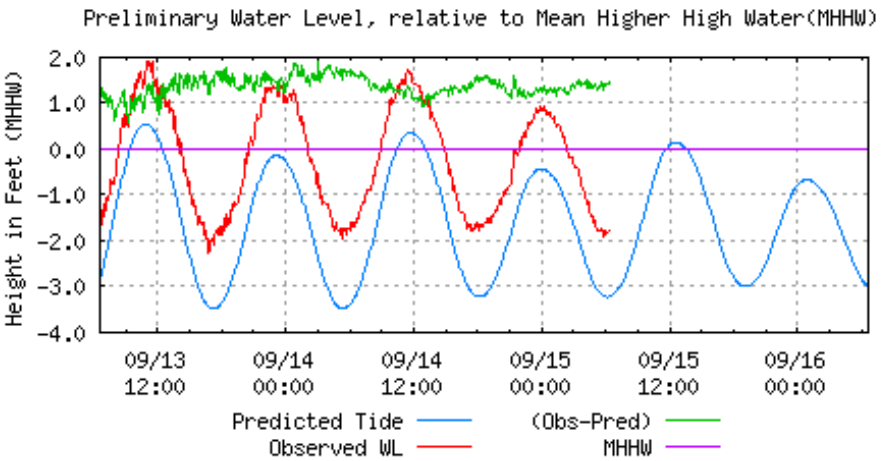
Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 11 knots Gusts: 17 knots Direction: 90° T

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



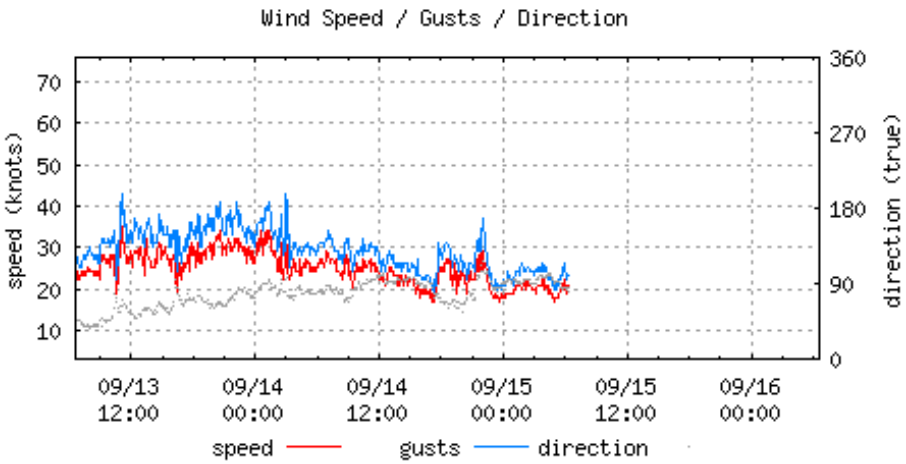
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1015.0 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



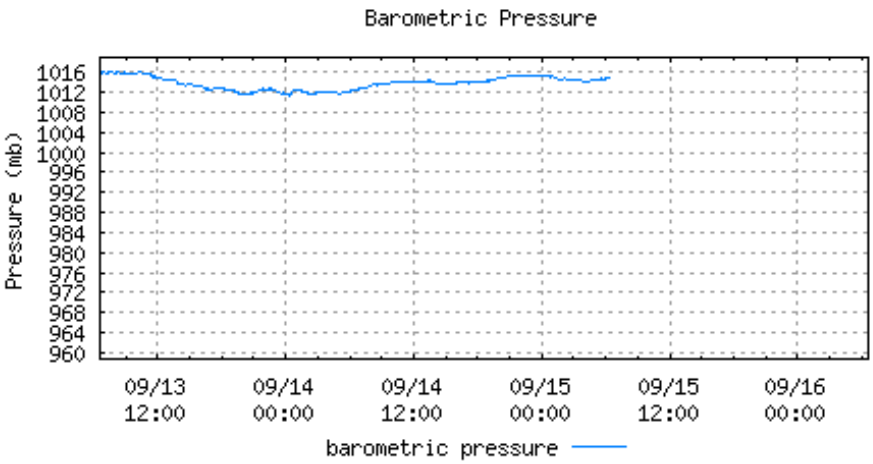
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -1.77 ft. Predicted: -3.22 ft. Residual: 1.45 ft.
Historical Maximum Water Level: Sep 18 2003, 4.13 ft.
Next High Tide: 09/15/2018 12:33 (EDT), 0.15 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC



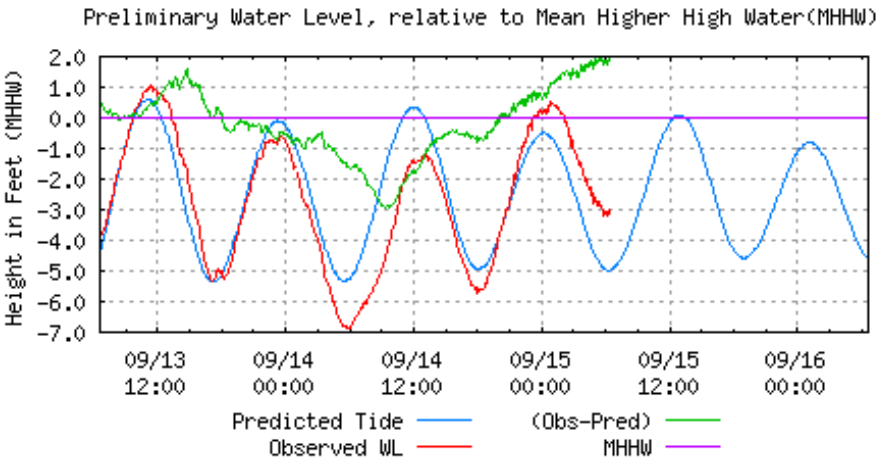
Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 21 knots Gusts: 23 knots Direction: 85° T

NOAA/NOS/CO-OPS 8651370 Duck, NC



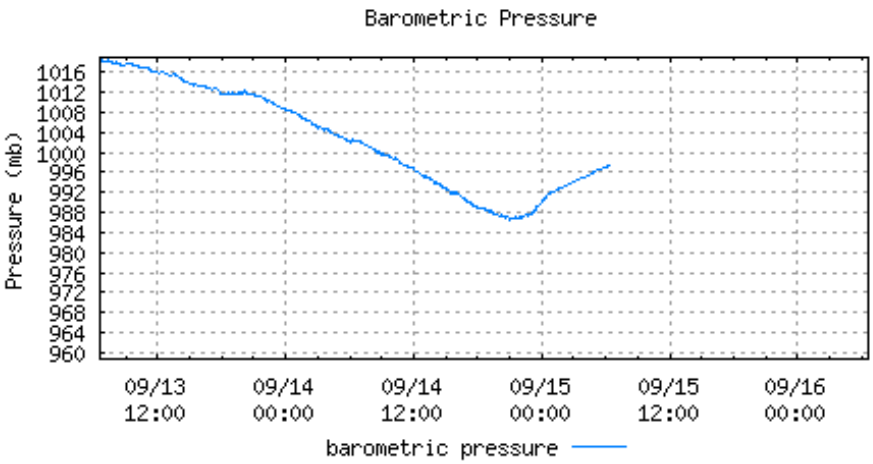
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1015.1 mb

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC



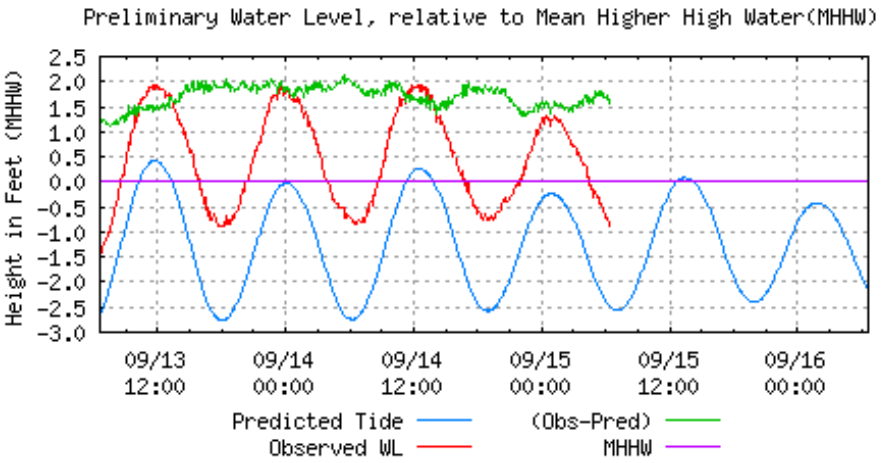
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -3.03 ft. Predicted: -4.97 ft. Residual: 1.94 ft.
Historical Maximum Water Level: Sep 21 1989, 8.77 ft.
Next High Tide: 09/15/2018 12:54 (EDT), 0.09 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC



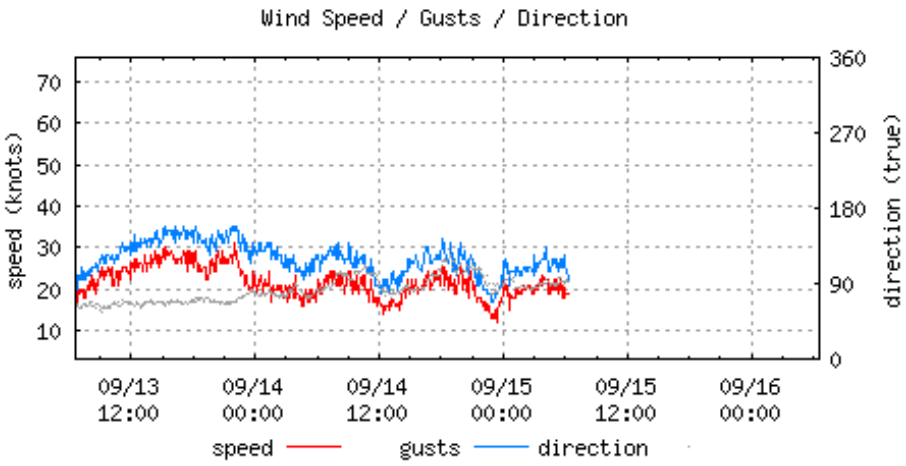
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 997.6 mb

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



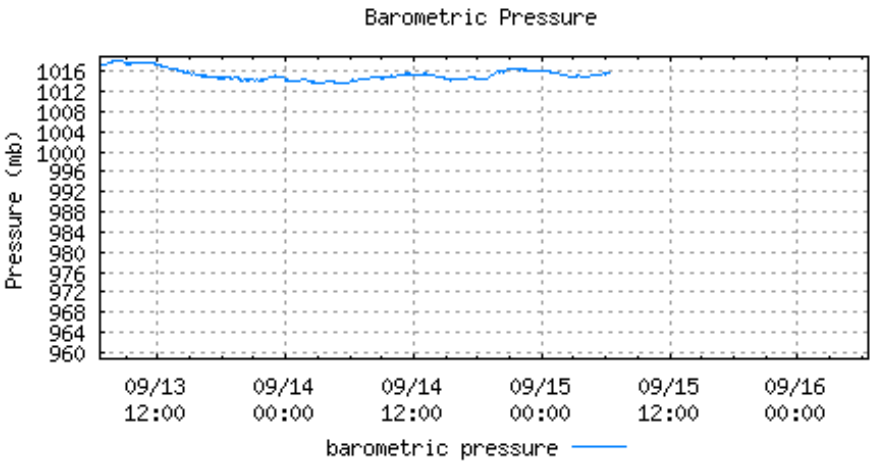
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -0.84 ft. Predicted: -2.48 ft. Residual: 1.64 ft.
Historical Maximum Water Level: n/a
Next High Tide: 09/15/2018 13:25 (EDT), 0.08 ft.

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



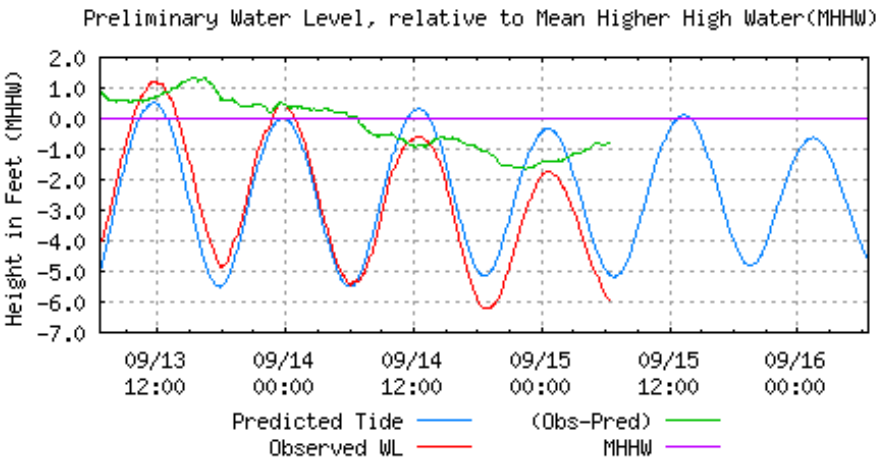
Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 17 knots Gusts: 23 knots Direction: 86° T

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



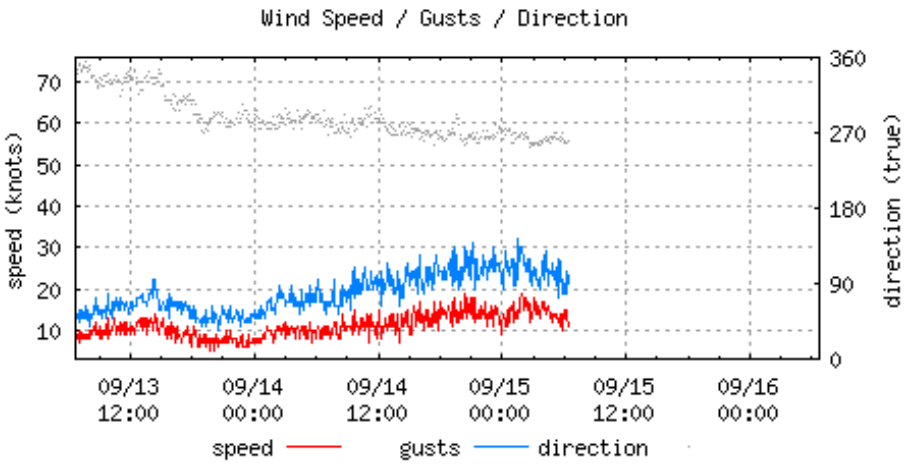
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1015.8 mb

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



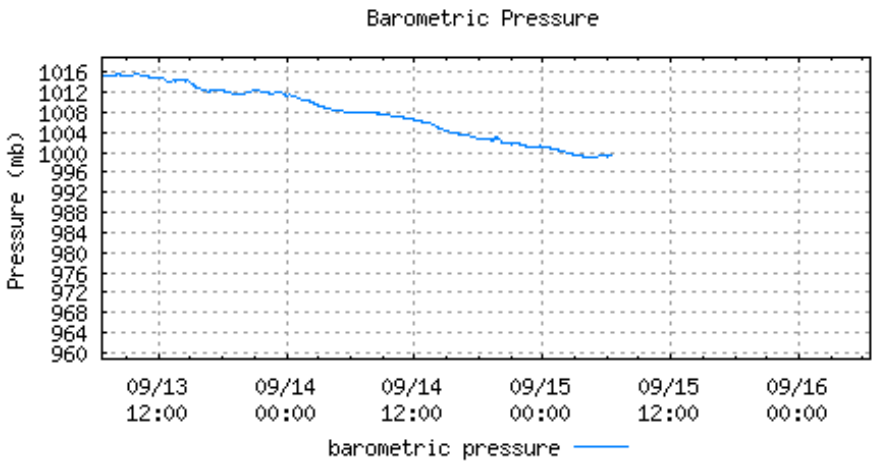
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -5.93 ft. Predicted: -5.11 ft. Residual: -0.82 ft.
Historical Maximum Water Level: Sep 21 1989, 6.76 ft.
Next High Tide: 09/15/2018 13:20 (EDT), 0.11 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



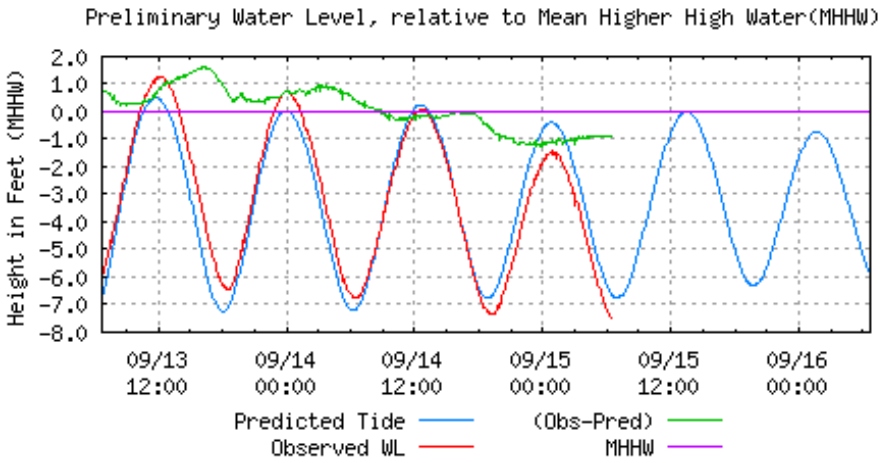
Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 11 knots Gusts: 23 knots Direction: 261° T

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



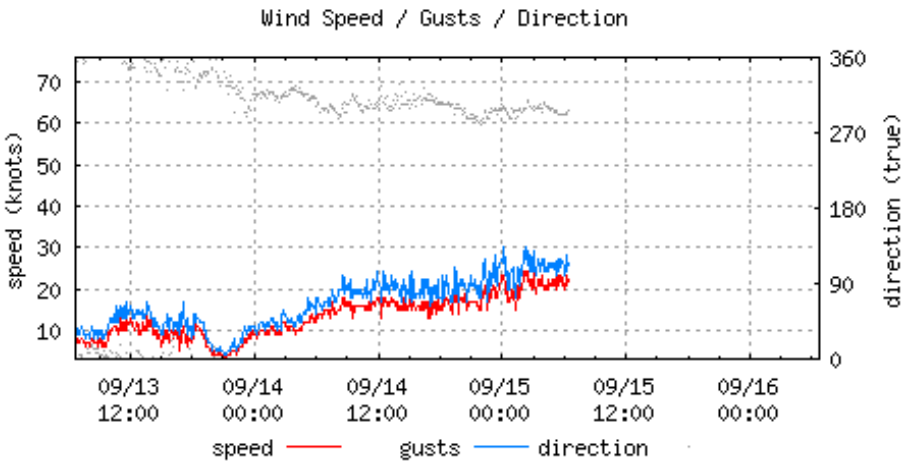
Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 999.4 mb

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



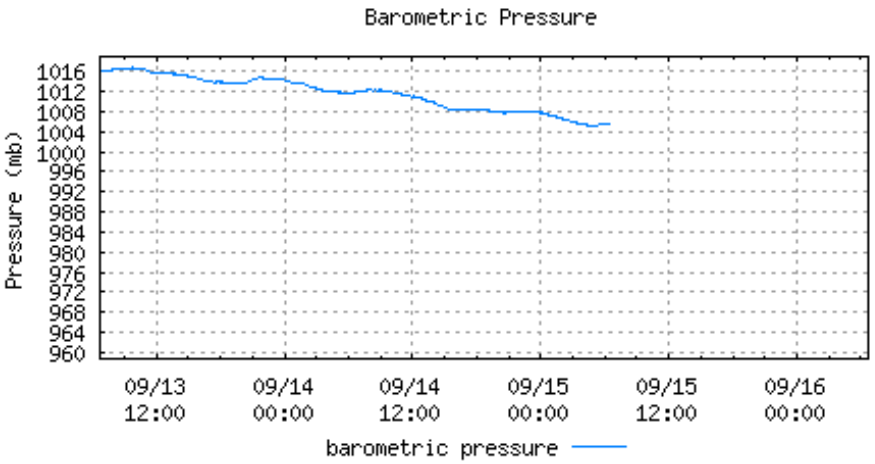
Last Observed Sample: 09/15/2018 06:24 (EDT). Data relative to MHHW
Observed: -7.48 ft. Predicted: -6.58 ft. Residual: -0.90 ft.
Historical Maximum Water Level: Oct 8 2016, 4.94 ft.
Next High Tide: 09/15/2018 13:28 (EDT), -0.01 ft.

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 06:24 (EDT)
Wind Speed: 22 knots Gusts: 26 knots Direction: 297° T

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 06:24 (EDT)
Barometric Pressure: 1005.6 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8658120	Wilmington, NC	09/15/2018 06:24 (EDT)	0.13 ft	-3.09 ft	3.22 ft	3.60 ft
8658163	Wrightsville Beach, NC	09/15/2018 06:24 (EDT)	-2.19 ft	-3.76 ft	1.57 ft	4.11 ft
8656483	Beaufort, Duke Marine Lab, NC	09/15/2018 06:24 (EDT)	-0.98 ft	-2.97 ft	1.99 ft	3.38 ft
8654467	USCG Station Hatteras, NC	09/15/2018 06:36 (EDT)	1.24 ft	-0.19 ft	1.43 ft	1.74 ft
8652587	Oregon Inlet Marina, NC	09/15/2018 06:24 (EDT)	1.17 ft	-0.60 ft	1.77 ft	1.78 ft
8651370	Duck, NC	09/15/2018 06:24 (EDT)	-1.77 ft	-3.22 ft	1.45 ft	1.73 ft
8661070	Springmaid Pier, SC	09/15/2018 06:24 (EDT)	-3.03 ft	-4.97 ft	1.94 ft	0.50 ft
8638901	CBBT, Chesapeake Channel, VA	09/15/2018 06:24 (EDT)	-0.84 ft	-2.48 ft	1.64 ft	1.93 ft
8665530	Charleston, Cooper River Entrance, SC	09/15/2018 06:24 (EDT)	-5.93 ft	-5.11 ft	-0.82 ft	-0.57 ft
8670870	Fort Pulaski, GA	09/15/2018 06:24 (EDT)	-7.48 ft	-6.58 ft	-0.90 ft	0.10 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce